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AUTHOR Crismore, Avon
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ABSTRACT

Noting the increasing recognition being given to the importance of content area reading, this paper describes an inservice education program designed for content area secondary school teachers in the Fort Wayne, Indiana, school system as a possible model for other school districts to adopt. The first section of the paper describes the program, giving information about its background, theoretical bases, objectives, assumptions, and instructional procedures. The second section evaluates the program as to its success in meeting criteria for inservice programs and in helping students learn from content area texts, while the concluding section examines the impact of the program on both local and state levels. (FL)

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An Examination of the Content Area Reading Inservice Program at Fort Wayne Community Schools

Avon Crismore

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An Examination of the Content Area Reading Inservice Program at Fort Wayne Community Schools

Indiana, like other states, has its share of secondary teachers who have never been prepared to teach reading or have been poorly prepared, students who are functionally illiterate or who have not mastered the content area courses and declining achievement scores. The problem of teachers and students deficient in skills and knowledge is widespread; therefore, Indiana is attempting to solve its problems in several ways: by minimum competency testing; improved pre-service training; and improved inservice training.

Minimum competency testing has now become a part of the educational system. Local school corporations have to deal with the reality of complying with Rule C-1, adopted by the Commission on General Education of the Indiana State Board of Education, which mandates that each district carry out its own educational improvement plan. In order to assist the corporations in carrying out this mandate, the Comprehensive Assessment and Program Planning System (CAPPS) was developed and a set of guidelines was written. CAPPS allows for the voluntary use of test results as a graduation requirement. Because there was general agreement that the pre-service preparation of secondary teachers to teach reading has been inadequate, the state has had a requirement for three years that every secondary teacher must have a three-credit course in teaching content reading to high school students. All colleges in Indiana that offer programs in teacher education offer such courses since to be certified to teach a student needs this course. Realizing that mandating minimum

competency testing and a pre-service reading course is necessary but not sufficient for improvement in teacher and student performance. The state is also focusing on improvement of inservice programs in content reading. The Division of Reading Effectiveness of the Department of Public Instruction this year has set up nine regional reading-in-the-content area workshops to meet the needs of content reading and is publishing a book for secondary teachers with guidelines on how to incorporate reading in their content areas.

There is good reason for the State Department of Instructions giving top priority to secondary reading. Although reading inservice has been around for 25 to 30 years, it has not been a significant aspect of secondary school programs. The Secondary Reading Committee of the Indiana Council of IRA recently surveyed the secondary reading program throughout the state (Lockwood & Gibson, 1979). The Committee found that only 50% of the respondents indicated that there was an existing reading inservice program in their schools. Another finding was that 66% of the respondents felt that some outside assistance would be helpful in planning an in-service program to meet the needs of their secondary schools. Data from the survey also showed that reading study skills in the content areas was the topic most often selected by the respondents (77%) as a topic that would best meet the needs of their staff at the present time. It is clear that there is a definite need to promote secondary reading in-service, that content area reading is on the rise in popularity, and that teachers and school systems feel they need outside assistance in planning content reading programs.

To help secondary schools and teachers set up content area reading programs, the Division of Reading Effectiveness this year is offering a series of nine two-day workshops entitled "Reading in the Content Area." The purpose of the workshops is to explore the nature of a content area reading program and present various methods for planning and initiating such a program. To insure that the ideas presented are relevant to the needs of educators, Division of Reading Effectiveness personnel consulted university personnel who consult in content area program planning and local educators who have content area programs. They visited schools where the program directors felt their content reading programs were successful, interviewing program directors and teachers and making slides, in order to present these programs as possible models for other schools in the workshop sessions. They found that the programs fell into two resource-based categories: those developed by employing in-house staff and those employing outside consultants. One of the school systems they visited where the secondary content reading program was judged successful by school personnel was Fort Wayne Community School System (FWCS), Fort Wayne, Indiana. The program in this school system falls into the category of those developed by employing outside consultants.

The purpose of this paper is to describe the inservice and content reading program in the Fort Wayne secondary schools and evaluate it as a possible model for other schools. The first part of the paper will describe the program, giving information about its background and history, theoretical basics and rationale, objectives, assumptions, and instructional procedures. In other words, it will give a description of the

general framework of the program and how it is operationalized. The second part of the paper will evaluate the program as to its relative merits in meeting criteria for inservice programs and helping students learn from content texts. The last section examines the impact of this program on the local and state level. The information for the description was received primarily from interviews with Fort Wayne school personnel and The Division of Reading Effectiveness personnel and materials supplied by the program director at Fort Wayne Community Schools.

Description of the Program

Background and History

Understanding Fort Wayne's philosophy of reading inservice and curriculum is necessary for understanding the secondary content reading program. According to Dr. David Platt, Director of Curriculum Development for Fort Wayne Community School System, inservice for grades K-3 emphasizes skills. There are two basic sets of inservice patterns for these grades: (a) inservice to help the teacher become a better manager of student curriculum. Sometimes, for instance, Houghton-Mifflin provides the inservice to help teachers become complete managers of their program, particularly the paper and pencil aspect. (b) inservice to help teachers become better diagnosticians and prescribers. Dr. Platt feels good diagnoses are a dime a dozen but good prescribers are rare. He believes there are only twelve or so good ones in the United States. Between grades 4-9, the main emphases in inservice has been on diagnosis and remediation. Now most of the inservice in the middle and secondary grades is content reading.

Fort Wayne school administrators are hoping enough skills are acquired in grades 1-3 so students can handle the print in grade 4; no content reading appears until 4th grade. In addition, grade equivalency growth rates level off by then; there is a spurt from K-3, but a leveling off after grade 3. Students are assumed to be decoding by 4th grade when they begin Indiana History, basic geography, and science. No basals are used in Fort Wayne after 6th grade but the system is considering going back to basals. FWCS believes that basals offer a streamline management system and that basals make it easier for teachers to get at the skill system, helping them differentiate between good and poor readers. When reading texts were adopted two years ago, the middle schools adopted texts from a company different from the basals in grades 1-3. It was a hodge-podge situation and not a program. In seventh grade the range in grade level equivalency scores becomes very wide. In government classes in the 12th grade, there are 9 grade levels in reading. The lack of a total basal program for reading for all grade levels and the new C-1 Competency Act in Indiana motivated FWCS to intensify reading inservice for content area teachers in middle and secondary schools.

The present content reading program began five years ago at Snider High School. At that time Dr. Platt, Assistant Principal of Snider High School, formed a secondary reading committee. The committee, acting on Dr. Platt's suggestion, recommended hiring Dr. Marjory Shoemaker to provide reading inservice for the staff. Dr. Shoemaker, at that time a free-lance consultant, had formerly been a graduate assistant and fellow at Syracuse University, working with Dr. Hal Herber, an expert in content

area reading. Dr. Shoemaker made a presentation at a faculty meeting, an awareness session about content area reading for the total staff. Mr. Petrie, the principal, asked for volunteers from content people to make a commitment to meet with Dr. Shoemaker every other month the rest of the school year. This meant Wednesday after school two hours and Thursday and Friday during preparation hour, a total of four hours a week in addition to any outside of class preparation that was needed. Out of 70 teachers present, 26 signed up.

The following day, Dr. Shoemaker met with small groups giving information and specific suggestions. This led to other sessions in small groups that first year. The first year focused on awareness of the Herber program of content reading and classroom techniques. The whole year was spent developing awareness and basic skills of being able to manipulate the product. Teachers from all subject areas were represented--art, music, industrial arts, English, science, math, social studies, etc. The small groups were interdisciplinary and became a support group, meeting 12-16 times that first year with Dr. Shoemaker, who provided a total of 20 days of inservice. Dr. Shoemaker worked for FWCS on a part-time basis the first year, spending every other month at Snider High School. During the month between visits, the volunteer content teachers worked on material construction that helped them understand the concepts of the Herber content reading program used by Dr. Shoemaker, making three level guides that they used later in their classroom. Teachers received close supervision the first year with Herber's concepts interpreted and demonstrated by Dr. Shoemaker and their many questions answered.

Teachers perceived Dr. Shoemaker as a quality person from the beginning and appreciated her helpfulness. According to Dennis McClurg, a former social studies teacher at Snider and present Assistant Principal at Northrup High School, Fort Wayne, the catalyst for bringing Dr. Shoemaker back the second year was Assistant Principal Platt. He was dynamic, forceful, and respected by teachers for his interest in and knowledge of curriculum. Dr. Platt feels strongly that if a school goes into content reading, an understanding of the literature that supports it is vital. One of the significant pieces of the literature is by Gagne' in the area of information processing on the subject of four memory concepts. He believes for inservice to work, that sustaining interest in the project on the part of one consultant is necessary. Because of Dr. Platt's inservice philosophy, knowledge of content area reading literature, and his dynamic personality along with the teacher support of a practical curriculum-oriented inservice program, FWCS was persuaded to make a commitment to have Dr. Shoemaker continue her consulting on a long term basis.

Dr. Shoemaker continued working with teachers in the content-area reading program for three more years. She provided a total of 60 days of inservice the second year, 100 days the third year and 180 days the 4th year as a full time staff member. Since the first year focused on awareness and classroom techniques, the second year focused on teachers' using these to develop a four to six weeks teaching unit. Teachers became somewhat less dependent on Dr. Shoemaker; and other teachers, impressed by what they saw going on the first year, volunteered to work with the consultant. The third year was spent on classroom testing and evaluation, and the

fourth on developing local expertise. Teachers who had been with the inservice program from the beginning taught others who were new. By the end of the four years, the program had been extended to six high schools and thirteen middle schools. Dr. Shoemaker trained 25 teachers as in-house experts who are continuing the program now that she is no longer on staff. Teachers meet outside of school hours with these in-house experts receiving from 16-20 hours additional inservice time each year. In addition, the school developed a product bank to which teachers continued to submit their lesson designs.

This is the fifth year of the content reading inservice program at FWCS. The pattern for all five years has remained the same--commitment, time learning the concepts, and materials. Each year more teachers and schools have become involved on both middle school and secondary levels. The program has been funded with federal and state monies. Last year FWCS spent $42,000 for consultant fees and travel (taken from their program development and evaluation fund) for the content reading program. They were willing to invest the money last year and the previous years because the cost will be considerably less in the future using in-house experts to continue the program. FWCS plan to hire their own teachers to do future content reading inservice; to attract teachers to this idea of peer teaching, teachers are not only paid by the hour but are given clock hours on the salary schedule. Last summer FWCS and Indiana-Purdue University at Fort Wayne offered a two week, 5 credit workshop course taught by Dr. Shoemaker to teachers and administrators in the Fort Wayne schools. Teachers who had previously worked with Dr. Shoemaker and some

new teachers and administrators learned the theory of the Hal Herber program and made products. Hal Herber's book Teaching Reading in Content Areas, second edition and his video-taped program were used as well as Dr. Shoemaker's demonstrations, lectures, and examples.

This year, Dennis McClurg wrote a proposal which was accepted by the school board asking that the course attendees be allowed to recruit new teachers for inservice and teach them. The school board would select the in-house teachers and pay them $8.00 an hour with the money coming out of the Program Development and Evaluation Committee Budget. Apparently the plans are proceeding toward this goal. Ken Richardson, reading teacher at Snider High School, after working with Dr. Shoemaker for four years and taking the course last summer, reported recently that he and others are now active in setting up a program to teach other teachers. Although continuing the inservice using master teachers is time-consuming for those regular classroom teachers, they are enthusiastic about it because they believe in the program and see this as a nice way to supplement their income.

Dr. Platt stated that although Dr. Shoemaker's approach was different in some respects from Herber's, the differences were superficial. He felt that her approach was superior to Hal Herber's video-taped approach. According to Dr. Platt, Herber's video-taped presentation, Reading Across the Curriculum was filled with jargon and couldn't stand alone. After seeing it, he felt frustrated. Even though, it may be a solution for smaller school corporations because it is less costly, he felt it was a waste of money. A consultant like Dr. Shoemaker is necessary to answer the many questions that arise. Her approach is basically interdisciplinary,

using free periods to make a brief presentation, using examples of the different reading guides and asking for teacher products based on the examples. It is an interactive approach using small groups. The teachers learn 60% of the inservice knowledge from each other in the small groups. Art teachers inform social studies and math teachers about how they use and design the guided reading guides, for instance. Teachers were encouraged to produce products and a bank was established. Each month a bibliography of the current products in the bank is prepared and distributed to the teachers.

Theoretical Basis for the Herber-Based Inservice Program at FWCS

Dr. Platt noted that the theoretical basis for the content reading inservice at FWCS is Robert Gagne's information processing theory. Gagne' and White (1978) state that modern learning theories support the basic notion that the effects of instruction may best be understood by exploring the three term relation: Instruction —> Memory Structure —> Learning Outcomes. The aims of instruction often include the establishment of more than one kind of memory structure, irrespective of the degree of specificity expressed in the instructional objective. Memory structures are related to knowledge stating and rule application learning outcomes. Knowledge stating can be measured by measuring the retention of knowledge in terms of completeness and correctness, of propositional meaning and by measuring inferences making using "near" and "for transfer." Assessment of rule application involves retention and transfer of the rule to novel situations, using vertical and lateral transfer.

Four kinds of organized memory structures have been distinguished: a network of propositions, intellectual skills, and episodes. In the network

of proposition, a proposition is more than one concept that the learner relates. A concept is more than one idea. There is no hierarchy--everything co-exists, but when one relates, that is a way to remember. An intellectual skill is an abstraction of the network materials but it is now hierarchical because of schooling. The imagery construct is highly visual and one remembers because of seeing. Remembering linguistically stored entities may be aroused by images or vice versa. The episodic memory structure incorporates (representation of personal experience) it is the representation of "first I did this, then I did that." Episodes may be a special subset of images and verbal knowledge. Memory structures have relationship. Knowledge stating as a learning outcome can be related to the memory structure of propositions, including relations among propositions and propositions are augmented by other memory structures, particularly images and episodes. The implications of this model for instruction is that students' understanding of what is being taught will be deepened to the extent that a greater variety of types of relevant memory structures are stored and that these memory structures become mutually supportive by the development of appropriate links among them.

Definition of Content Area Reading

Dr. Platt defines content reading by saying what it isn't: SQ3R is not content reading, content reading is not concerned with rate, vocabulary growth or comprehension per se. Content reading should be called content thinking. Hal Herber, in his book, Teaching Reading in the Content Areas (1978) defines "teaching reading through content" by comparing the responsibilities of a reading teacher to those of a content teacher. A

reading teacher's curriculum is a set of reading skills; he does not teach content but develops an understanding of the processes being applied to those materials. The content teacher has a set of ideas as his or her curriculum. The teacher teaches only the skills needed to understand the ideas that the curriculum calls on them to understand. Skills are developed functionally, not directly. The skills to be taught are determined by the content of the material assigned for a given lesson, never the reverse.

Rationale, Principles and Issues

The following principles and issues of content area reading underlie the program presented by Dr. Shoemaker to FWCS.

1. The transfer of reading skills is unnecessary when content and process are taught together.
2. Teaching the process is as important as teaching the content.
3. Student interaction is more productive of learning than student isolation.
4. A person tends to learn best what interests him or her most.
5. Fusing content and process requires simulating the learning sequence through systematic teaching.
6. Recognizing ideas is easier than producing them.
7. Through teaching, relatively simple tasks can be made unnecessarily complicated.
8. Students often learn more with, than from, teachers; but, when that happens, the "with" is also "from."

She elaborates on the following principles, giving for each a rationale, definition, and point of view: eliminating the need for transfer of skills, balancing process and content, simulating the sequence guides learning, interacting students learn more, and sequencing for the comprehension process.

Eliminating the Need for Transfer of Skills

Rationale: Transfer of reading skills to content areas is unnecessary if the process of how to read and study in content areas taught within each area by each teacher.

Definition: Transferring of skills is a procedure which requires students to learn skills in one place (e.g., from the reading teacher) and to use them in another place (e.g., in the science class).

Point of View: Reading skills must be used in order to gain information from a printed source. Skills taught separately from the independent or content material in which they are needed are not transferred automatically. Teaching the process, providing supervised practice and purposeful application of reading skills in a structured situation, is essential for understanding any content material (Nemeth & Shoemaker).

Balancing Process and Content

Rationale: Teaching the process is as important as teaching the content.

Definition: Process is the means by which a substance is learned while content is the product--what is learned.

Point of View: Few balances are as difficult to attain and delicate to maintain as between the content and the process in a subject area's curriculum and instruction (Herber). Every content area teacher is responsible for and interested in his student's acquisition of the content--the product--of his

subject. Each teacher wants his students to learn more than just the course content, he wants them to be able to continue a lifelong learning in the subject area. In order to accomplish this, his students must know "how to learn" the subject matter--the process. The concerned teacher will teach them to establish independent learning habits through a balance of process and content.

Simulating the Sequence Guides Learning

Rationale: Systematic teaching simulates learning by guiding students through the process.

Definition: Simulating the skills sequence involves walking students through the theoretic hierarchy of skills.

Point of View: "Most psychologists agree that learning takes place in a systematic manner proceeding from easy to difficult steps which result in simple to progressively more complex behaviors on the part of the learner" (Nemeth & Shoemaker).

Dr. Harold Herber has suggested a hierarchy of comprehension skills and a process of vocabulary techniques which lead students through the learning process. The teachers' guidance has sufficient flexibility and latitude to permit students to use their own systems for pursuing ideas and applying skills.

One specific application of this theory can be observed within the instructions given for assignments. Guidance through instructions includes a statement of the purpose of the exercise, methods for validating the answers, and the expectation that justification for answers will be required.

Interacting Students Learn More

Rationale: Students who work in small study teams where discussions are an integral part of their assignments learn better than students who work independently without discussion.

Definition: Interaction is the process of students meeting to discuss the details, relationships, and concepts implicit in the content area.

Point of View: Discernible results of student interaction have been noted by various researchers. Currell found interest, retention, and comprehension all increased when pupils work in small study teams. Herber, Vacca, and Sanders all cite evidence that discussion produces gains in learning.

According to Barron, Herber, and others, students' interaction should focus on giving supportive evidence for their assignment answers. When responses are evaluated in light of this supportive evidence, student interest and motivation increase.

Sequencing for the Comprehension Process

Teacher directed:
1. statements with references
2. statements without references
3. questions with references
4. questions without references

Student directed:
5. questions without references
6. statements without references

Too often we assume that by doing #4, students can perform #6.

There are different levels of comprehension or cognition. They are related; in a sense you could say that one leads to another. Levels of comprehension consists of the following terms:

1. literal--what did the author say?

2. interpretive--what did the author mean?

3. applied--how can we relate what we learned from the author <u>and</u> from our own experience?

<u>Objectives</u>

For FWCS the objective is to produce an independent reader on all three levels, literal, interpretive, and applied. They want a reader who can

read the lines, read between the lines, and understand what the author meant, and take what the author said and apply it to the reader's own life experiences. They want a reader who can answer the questions, "What does he say?", "What does he mean?", and "So what?". If the content area teachers can produce such readers, then it follows that these students will be able to master the course content and pass the minimum competency requirements of the C-1 law. FWCS will then be able to breathe a sigh of relief when it sends the tests results to the Department of Public Instruction.

Herber's ultimate objective appears to be to improve students' ability to independently comprehend content area reading materials (expository prose). The more immediate objective is to facilitate students' understanding of a particular text through teacher-prepared lessons. The implied criterion tasks for students are teacher-prepared tests and possibly standardized content-area tests (Campione & Armbruster, 1980).

Assumptions about Reading/Learning from Text and Teaching

Dr. Shoemaker's Herber-based program has the following assumptions about how students learn content from reading a text.

1. Reading is a three-level thinking process. The literal level involves decoding. The interpretive level involves interpreting the meaning of the decoded words by identifying the ideas or concepts from intra-text relationships. The applied level involves relating the presented ideas to prior knowledge and experience.

2. Reading entails the ability to reason about what has been read. Reasoning can be open or closed. Closed reasoning is content-bound, intrinsic to the text and is closely related to the literal and interpretive levels of comprehension. Open reasoning is content-free, extrinsic, and associated with the applied level of comprehension.
3. Readers must be able to identify and use the typical organizational patterns of text (cause-effect, compare-contrast, time order, and simple listing).
4. Readers must have the ability to deal with new vocabulary, particularly how to acquire word definitions, and meanings from context, word structure and the dictionary.
5. The functional approach to reading instruction is better than the direct approach. Reading instruction should be done by subject matter teachers using resource materials normally used in the curriculum.
6. Students shouldn't be taught <u>about</u> reading, but should be taught how to apply the reading and reasoning processes effectively. If students "walk through" simulations of basic reading/reasoning processes, they will eventually be able to use the processes independently.
7. Learning is facilitated in student-centered instruction; students should be actively involved in the learning process and be encouraged to discover the relevance of their prior knowledge and experience to the immediate task.

8. Students can benefit both cognitively and effectively from working in small, randomly-assigned groups used regularly in the classroom.

Instructional Method and Procedures

The main instructional methods are teacher-prepared, structural lessons and small group discussions. According to Ken Richardson, reading teacher at Snider High School, the method is to get students to simulate the process one goes through to read effectively. It is an interactive method, using small groups, randomly assigned. Each student in the group has a guide: one student acts as a leader for the group, helping the less able to use the guides on the three levels. Sometimes a whole period is spent on the guides, other times only a part of a period. Students read the material with the guide beside them. They can read the guide first or simultaneously.

Herber recommends that the overall sequence of instruction include three stages: preparing the students to read, guiding the students as they read, and developing independence appropriate to the students' needs and progress. The preparation stage involves establishing motivation, providing a frame of reference in terms of background information and review, establishing anticipation and purpose for reading, giving directions for use of the materials, and promoting vocabulary development. In the guidance stage, students use teacher-prepared guides for levels of comprehension, organizational patterns, and reasoning. During the independence stage, students apply the processes and concepts.

The following procedure is recommended by Herber for preparation and use of the exercises. The teacher should first apply the relevant process (levels of comprehension, organizational patterns, or reasoning) to the text or other information source. Next the end product of the applied process is given to students in the form of declarative statements. Students must cite evidence from the information source to support their decision about the appropriateness of the statements. During the randomly-assigned small group discussions, students should discuss cognitive processes and content.

Dennis McClurg, former social science teacher at Snider High School, states that when teachers use Shoemaker/Herber philosophy of content area reading, they must incorporate this philosophy in their testing. The test is a test of the students' comprehension of the process. If a student had been asked to read a paragraph and the pattern was compare-contrast, the test would ask the student to identify the pattern used as well as the subject matter. For the applied part of the test, if students in social studies had been studying a unit on ethnic groups, they would have essay questions like these: (a) All oaks are trees, but not all trees are oaks. Apply this statement to the unit just completed and to your own life's experience. (b) Is American society combination salad with French dressing or cole slaw? Use the unit just completed and your own life experiences to answer the question. According to McClurg, not all students can do the applied part of the test, but the objective is to have all students do the literal part and almost all do the interpretive part, and as many as possible do the applied part.

The structured overview part of the Shoemaker/Herber program appealed to McClurg. The structured overview is a pre- and post-organizer. In the preparation stage the teacher would take all concepts in the unit and put them on the blackboard in the structured overview. It ties all the parts together showing what is related to what. The whole is on the board--this chapter. In the chapter test, teachers can have the students use the structured overview as a post organizer. If there were 18 concepts, the teacher could put 18 words on 3 x 5 cards, one word on each card. Each small group would be given a set of cards and asked to arrange the cards on the floor in a pattern to show how the ideas are related. Then each group travels to the other group and sees the differences in the patterns. Each group must explain to the teacher and other groups the reasons for why they did what they did. The teacher and other students then evaluate to see if their pattern is correct or a possible alternative.

Dr. Shoemaker used those same instructional methods and procedures with the content area teachers to teach them how to read/learn from content area sources. They were randomly-assigned to small groups and given reading assignments from Herber's book and reading guides. They simulated the reading process themselves while learning the content.

Evaluation of the Program

Evaluation by FWCS Personnel

Teachers and administrators of FWCS are pleased with the content area reading program initiated by Dr. Shoemaker. One teacher said that it was the first time in ten years of teaching experience that a commitment had been made by a school system to a consultant to come in on a long term basis and work with teachers on something they could use practically in

a classroom. Always before it had been a one hour, one day, one night, or one weekend shot. This is what motivated him to get involved in it.

Dr. Platt considered it a success because it was not a "flim-flam" inservice program. A reading specialist was not brought in for one and a half hours or for one day with the thought that there would be a pay off. One of the reasons of the success was the continuing support group the content area teachers had throughout the past four years. Content reading, he feels, is a difficult methodology and it is easy for a teacher to get discouraged, to think that he's out in left field doing something that no one cares about. Teachers needed to celebrate their successes and lament their failures and could do so with the support group consisting of the consultant Dr. Shoemaker, the system-wide secondary reading committee, school administrators and fellow content area teacher volunteers. Because content reading is not easy, he felt it necessary to get someone who knows something. Dr. Shoemaker is one of the dozen or so people qualified in the country to carry on a good content area reading program, according to Dr. Platt. (The other eleven are also disciples of Hal Herber.) Content reading is not an inservice that makes weak teachers better. It does make good teachers better. Because it is abstract, the weak ones drop out. But it is a good inservice program.

Dennis McClurg also felt that the best thing about the program was that it was the first time an inservice event went beyond a one-time spot. It dealt with the curriculum and continued and was practical. The teachers could create materials they would use, non-commercial materials. The inservice continued because reading was not separated from the subject.

There are some possible problems to consider, however, McClurg noted. Teachers can overkill the program. He related that at one point students went up to an accounting teacher saying, "We are bombarded with reading guides! Four out of five of our teachers are using them. What is going on here, a new course?" Many teachers dropped out, too. At times, they dropped out after getting what they wanted. English teachers and coaches, for instance had time problems and so dropped out after a time. Some teachers dropped out because they couldn't handle it--they were unwilling to commit the time. To draw up a reading guide for one assignment required four to six hours. Doing this becomes easier after a while and then two or three can be whipped out in an hour. Once a teacher has them, they can be reused. However, when text adoption times comes and a new text is adopted, then new guides must be written. Text adoption was a factor in the decision of some teachers deciding not to be a part of the program.

In addition to the preparation time being a drawback, the time needed in class to teach what is being taught in the course means that not all the course material will be covered. There is also a paper expense for the schools because of the number of reading guides used by each student. But the reading guides are worth the expense and time. The patterns and guides aren't course-specific, the guides are the process so, since the program emphasizes vocabulary development, and preteaches, prior knowledge is not a factor. The guides are a "road map" and students really do use them.

Another good point about the program is that it forces the teacher to read the material he is asking the students to read and ask why he wants students to read it. Teachers learn to use readability measures.

Dr. Shoemaker taught five kinds and customized readability measuring for each department. Teachers did not concentrate on badly written texts but on what is in the text they had, reading it more analytically. They were interested in the subject matter and not the reading of the text, so were often unaware or uninterested in whether the text was well-written.

The three-level guides are an asset. The average and below average students learned the most from comprehension levels one and two. Teachers got more student participation as a result of the inservice. After the students read the assignment and use the reading guide, the teacher goes over the reading guide in class and finds that all students can answer some questions. The good readers help the poor readers in small groups by explaining the interpretive level. Also, the reading guides can be used for non-print materials. Art teachers used them to "read" a picture. Other teachers use them for films, tapes, and records. An industrial arts teacher uses them for the verbal directions on using the electric saw.

Ken Richardson also gives high marks to the inservice. He said that in his opinion students internalize the reading process. What they do is reading, with the teacher's guidance. There is nothing standardized about the program. It is all customized and not mass produced. It is very time consuming, however. The inferencing part of the program is the most difficult. Most of the teachers, according to Ken, love the program because it works.

Meeting the Criteria for Inservice Programs

Indiana teachers, like teachers everywhere, have certain criteria they want a reading inservice program to meet. Gibson and Lockwood (1979)

found that respondents to the secondary reading programs survey rated inservice effective if the planning for it was conducted by a combination of in-service leaders and teachers. They indicated that teacher participation is an important factor in planning and implementing meaningful in-service. Several factors were noted as limitations to the effectiveness of the inservice training programs. They were, in order of magnitude:

1. Lack of meaningful follow-up activities to expand beyond the program presentation;
2. Insufficient practical application to the actual teaching situation;
3. Lack of staff, students or community involvement in planning;
4. Program goals too ambitious for the time allotted.

The Division of Reading Effectiveness found on their visits to schools with successful content area reading programs other criteria that program directors and teachers wanted inservice programs to meet. To work well, an inservice program must:

1. Be a number one priority for administrators and staff;
2. Provide released time or reduced class loads for teachers;
3. Pay teachers for their time;
4. Have teacher participants willing to put in extra time during the school day and outside the school;
5. Survey teacher needs before the inservice;
6. Evaluate the inservice afterwords and the teacher participants;
7. Have administrators participating in the inservice so they can better evaluate the inservice effectiveness;

8. Have a leader who is a "people" person, one who enjoys working with the staff, a "go-getter" with charisma;
9. Have a leader who is knowledgeable and experienced in teaching on the secondary level;
10. Have teacher participants willing to look at content and information sources from the students' perspective.

In a chapter giving guidelines for inservice education (Smith, Otto, & Hansen, 1978), the authors point out there are three serious mistakes often made in planning and implementing in-service programs: failure to relate staff participants' needs; failure to select appropriate activities; and failure to assure effectiveness by using sufficient staff and other resources. One set of guidelines they suggest schools follow is the following: emphasize benefits, secure voluntary participation, limit group size, identify problems, set feasible goals, share the planning, plan divergent activities, enlist administrative support, arrange for release time, provide evaluation, make adjustments, and make inservice continuous.

The FWCS content area reading inservice does not meet several of the criteria set forth by Indiana teachers and reading educators. Although the secondary reading committee at Snider High School did recommend that Dr. Shoemaker lead the inservice, most of the planning and decision making appears to be done by Dr. Platt. Once Dr. Shoemaker arrived on the scene, it was all cut and dried. Teachers were not a part of planning the program; it was all prepackaged. The teachers in Fort Wayne do not appear to have been surveyed for a needs assessment, were not given released time, and were not paid for their time.

The inservice program at FWCS does however meet most of the criteria for a good inservice program. It meets these criteria: It has meaningful followup activities beyond the original presentation, has practical application to the actual classroom, is a top priority for administrators and staff, has administrator participation, provides for evaluation of the inservice, has a quality, knowledgeable, charismic leader, secured voluntary participants, limited the group size, set feasible goals, planned divergent activities, provided for adjustments and made inservice continuous. Based on the criteria for inservice programs, this inservice program rates high.

Evaluation of Criteria for Learning from Texts

The Herber-based content reading program at FWCS has many features about it that help students learn from texts.

Program Strengths

1. The program is systematic. Many content area reading programs and reading inservice programs are not.
2. The program is top-down, and wholistic. Herber does not believe in fragmenting reading, using Goodman's views for support.
3. The program focuses on important comprehension skills: the literal, interpretive, applied levels, the common organizational patterns, reasoning, vocabulary development, prediction as motivation, and assessment.
4. The program is process-oriented. Herber emphasizes the process of reading as the only way to learn from texts--the "how to."

5. The program teaches the process, the strategies to the teachers. Teachers learn content area concepts and techniques before attempting to use the program in their classrooms. Many teachers need this because they are deficient in reading/thinking skills.
6. The program is interactive. Students are not isolated, but learn with their teachers as well as from them. They learn from their peers, also.
7. The program exposes poor readers to the same skills as good readers. Herber assumes that poor readers can reason and read. The program makes some adjustments for poor readers but has high expectations for them.
8. The program requires evidence as support for answers. Many students today have not been held very accountable for giving evidence from the text itself, outside sources, or their own experience to support their opinions.

The Shoemaker/Herber program, however, does not meet certain criteria for programs that help students learn how to learn from texts. Questions can be raised about some of the learning and teaching assumptions.

Program Limitations

1. The program is general. To accomplish the objectives of secondary education, an inservice program must provide both general models of learning and specific models. In addition to the general reading concepts that Herber presents, students need content-specific strategies. Bransford (1980) notes that

in developing cognitive skills so students can learn to learn with mastery and precision, they need the general approach of programs like Feurstein's Instrumental Enrichment and also a specific content approach. Students need general strategies and content-specific strategies in order to learn from text.

2. The program does not deal with some skills that it should. Herber does not believe that getting the main idea and detecting the author's mood are important skills. Davis (1971), however, reported after considerable study that comprehension is composed of separate skills and abilities such as understanding word meanings (and discerning them in context), verbal reasoning, getting the main idea and detecting the author's mood. Herber deals with only the first three skills.
3. The program is not based on recent research in reading comprehension and instructional psychology. In Herber's second edition Teaching Reading in the Content Areas (1978) only four references are used that were published after 1975 and only a few additional ones after 1970. Most of his references using empirical research are students dissertations from Syracuse University. In Chapter Five, six of the thirteen references were Syracuse dissertations, and in Chapter Six, seven of the eleven references were Syracuse students. None of the recent advances in instructional psychology such as problem-solving, metacognition, developmentally based instruction, global psychological models, etc. (Glaser, 1978) are evident

in his program. No recent studies are cited with respect to the more advanced stages of comprehending information from text, functionally using text in order to learn from it, and analyzing ideas. The present research themes of comprehension as the construction of knowledge, the structure of discourse and the importance of prior knowledge are most in evidence (Glaser, 1979).

4. The program has no empirical evidence that readers can transfer the skills in the program to other reading situations and that readers do in fact become autonomous. Herber (1978) has no evidence for his statement, ". . . and if they (teachers) use essentially the same process across the grades as well as across the subjects, then surely the students ultimately will be able to apply that process on their own." He also says, "We have not run case studies for high school students who have been involved in this kind of instruction. However, we have worked with schools over long periods of time and have observed that students do indeed internalize the strategies and find them increasingly useful as they progress through the grades. Much of the data for this conclusion is informal" (1980). Follow up studies, especially longitudinal studies are needed to verify the program.

5. The program does not teach autonomy. Readers need to learn to function autonomously in addition to interactively. Herber's program may encourage dependency on a system that will need to

be abandoned, like the reconstruction of the oral language system for written composition (Bereiter & Scardamalia, in press).

6. The program does not often result in quality teacher products. In an examination of the products produced by FWCS teachers participating in the program, few were close to the quality of examples used by Herber in his text and Dr. Shoemaker. Out of a total of 33 products included in a FWCS notebook, 19 of them were vocabulary reinforcement exercises (because they are easy to produce?). Although Herber states in his vocabulary chapter that "one can draw a parallel between definitions of words and the literal level of comprehension and a parallel between meanings of words and both the interpretive and applied levels of comprehensions" and that definitions are only a start. All of the 19 vocabulary exercises except one were definitions or games on the literal level. Only one was a meaning exercise using analogy. Herber advocates and illustrates use of exercises for word structure, categorizing, word building, associations, shades of meaning, analogies, and definition, yet only definitions, word recognition, magic squares, chinese word puzzles, scrambled words, crossword puzzles, word hunts were created as products. Two predictor guides were made, six structural overviews, six 3 level guides, three reasoning guides and six organizational pattern guides. Of the organizational guides, all were cause and effect except one comparison/contrast. No simple listing or temporal patterns were made.

The middle-school products were less satisfactory than the high school products. The products produced by English and math teachers were more satisfactory than those by other content area teachers. It is unfair to make adjustments about the program based on 33 products from one school, but the products do raise questions. Have the teachers learned the strategies? Do they prefer to do the literal level exercises because they are easy and student preferred?

7. The program's structural overviews are too general. The structural overviews are to be used as pre and post organizers and supposedly show relationships between concepts. But they, like SQR3, are general and not content-specific. They show in general the who, what, when information only. Words instead of sentences are used and students end up with clusters but not the knowledge of what caused them to be clustered. Students need to have content-specific schemas such as the biological system. The structural overviews require subsuming only but not relationships like mappings. In a structured overview of a nation schema, on page 158 of Herber's text, geologists, for instance, would look at it differently from historians. Students need to be helped to think like a scientist while reading a science text. The sooner they can do this, the more effectively they'll read (Armbruster & Anderson, 1980).
8. The program's organizational patterns are too general and limited. The most widely used general frames or patterns of organization

in textbooks seems to be compare/contrast, problem/solution, definition/example according to Armbruster and Anderson (1980). Herber concentrates on cause and effect, comparison-contrast, simple listing and temporal, ignoring problem/solution and definition/example. In addition to general patterns, textbooks also include content-specific frames such as the "scientific theory" frame or the "process" found in science texts (Armbruster & Anderson, 1980). Perhaps the organizational patterns could better be taught by using structured flow-charting, a visual representation (Geva, 1980).

9. The program does not teach teachers and students to deal with badly-written texts. Herber does have a small section on readability and Dr. Shoemaker did deal with readability formulas and cloze, but in addition to this knowledge, teachers need to know the other factors that cause a text to be readable or unreadable such as number of propositions per paragraph (Kintsch, 1977); topic shifts; information about the author's frame for the content area and how that frame is reflected in the organization of the major parts of the textbook, how chapters are related to each other and the title, how sections are related to each other and the title and how paragraph sentences are related to headings, subheadings, or topic sentences; and irrelevant information (Anderson, Armbruster, Kantor, 1980; Armbruster & Anderson, 1980). Other readability factors not covered by the formulas and cloze procedures are flow of

information (Vonde Kopple, 1980); purposes and shared experiences of author and reader; ideas, relationships between ideas and structure (Tierney & Mosenthal, in press).

10. The program does not recognize the necessity of informing students of the rationale or significance of the activities they are performing. At no point in the instruction do teachers tell students the reasons why they do what they do or why it is important to do what they do or how they can use the strategies in one class to transfer skills to another novel situation (Brown, Campione, & Day, 1980). Bransford, Stein, Shelton and Owings (in press) point out how important it is for learning how to learn that students know the rationale and significance of facts, know how to recognize a difficult problem and ask themselves relevant questions. Students need to know <u>about</u> reading.

Impact of the Program

On the Local Level

It seems likely that the FWCS content area reading program will make an impact on surrounding school systems. One of the nine content area workshops of the Division of Reading Effectiveness was located in Fort Wayne in December of this year. No doubt personnel from FWCS attended the workshop to further elaborate on the information concerning their program given in the tape/slide presentation. No doubt teacher products were available from the product bank for teachers to examine, and invitations extended for visits to the content area classrooms of FWCS to see the

program in operation. The proposed new program with the graduates of the Shoemaker inservice and Indiana-Purdue University course providing in-service to other FWCS teachers may result in their eventually providing inservice to nearby schools. The teachers' organization of surrounding area schools is bound to become aware of the successful content area reading program at FWCS and ask for assistance from them in the form of inservice by the in-house experts or for courses at Indiana-Purdue University taught by in-house experts. The smaller school corporations have no funds to hire a consultant like Dr. Shoemaker and probably no personnel able to write grant proposals for such a consultant on a long-term basis, but they could easily afford the in-house experts of FWCS if they are allowed to use them. The local school systems have had no inservice programs in reading, and they are concerned about Rule C-1 also.

On the State Level

According to Ken Richardson, the state universities have had nothing to offer that amounts to anything in content area reading. Fort Wayne is the only school system in Indiana using the Shoemaker/Herber approach to content reading. In comparison with the other six approaches that were considered successful by the program directors in the Division of Reading Effectiveness selection, Fort Wayne's seems superior. If the FWCS in-house experts are effective inservice consultants, then FWCS could have an impact on the whole state. These inservice consultants could teach inservice courses during the summer at various universities, influence the preservice required course content, put on workshops by themselves or in conjunction with the Division of Reading Effectiveness. Because of Fort

Wayne's success, other large school systems in the state may hire free-lance consultants trained by Herber. Whether they do or not will probably depend on the results of the proposed FWCS experiment with in-house experts. Inservice has no place to be but up in Indiana. Because of Rule C-1, reading inservice is a necessity and schools are looking for a good model. The content area reading program at FWCS is a good model for a start. With some adjustments by research-knowledgeable reading personnel, it could be an effective model for the whole state.

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